ALABAMA GEOSPATIAL
STRATEGIC PLAN

FISCAL YEARS 2010-2013

Created by the
Alabama Geographic Information Council and the
Alabama Geographic Information Advisory Committee

JUNE, 2010

Alabama Geographic Information Executive Council

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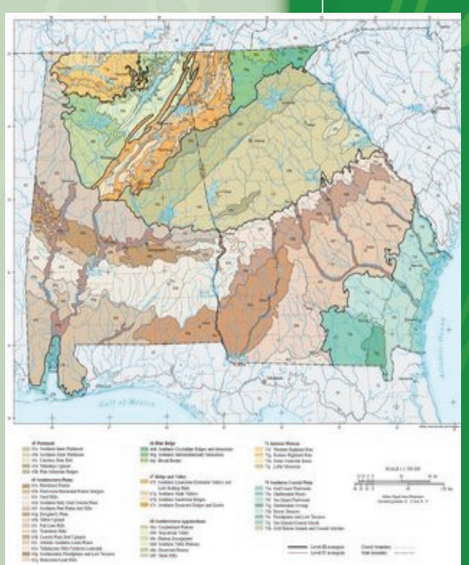


EXECUTIVE SUMMARY

For centuries the standard means of sharing geographic information with others has been through the creation, distribution, and use of maps. The limitations imposed by traditional maps have been overcome by advances in computer technology. This includes the evolution of powerful and sophisticated computer-based geographic information systems (GIS) or in layman's terms intelligent maps. The increased functionality of GIS allows us to look at combinations of geographic information in new and diverse ways. Figuratively, GIS combines paper maps and the contents of filing cabinets into a single "computer map".

GIS has made it economical and practical to analyze vast amounts of information quickly. In the public and private sectors, GIS is widely adopted as the tool of choice for data management, analysis, and presentation. The constant cycle of collecting and updating geographic data remains costly. **Collaboration and coordination is the key to reducing costs, eliminating redundancies and increasing efficiencies.** Although the end use of data varies, organizations have realized common threads of data exist that can be shared more economically and efficiently. Such partnerships save time and money allowing for the construction of a more robust GIS in local communities and throughout Alabama. This cooperation is possible through the adoption of a strategic plan that establishes minimum standards, universal terminology, and fundamentally sound strategies for moving forward.

On November 27, 2007, Governor Bob Riley signed Executive Order 38 establishing the Alabama Geographic Information Executive Council (AGI-EC) and the Alabama Geographic Information Advisory Committee with the stated purpose of establishing policies relating to the use of geographic information, geospatial data, and related technologies. It was conceived to foster cooperation among governmental agencies, academic institutions, and the private sector to improve the quality, access, cost-effectiveness, and utility of Alabama's GIS assets. Further, the directives of the Executive Order will serve to facilitate the deployment and use of geographic information as a strategic resource statewide.

The strategic plan presented herein charts the future course of geospatial information technology integration and development in Alabama and sets forth the vision, mission, outcomes, objectives, and products for AGI-EC. **The Strategic Plan outlines seven major focus areas for geospatial activities and initiatives under the domain of AGI-EC. These are:**

- Governance
- Framework Data
- Metadata Standards
- Data Standards
- Data Access
- Communication
- Education and Outreach

Implementation of the Strategic Plan, as envisioned, allows the State of Alabama to rapidly progress in realizing the full potential of geospatial technology and data. Furthermore, the plan provides long-term economic and societal benefits to the State through increased accessibility, efficiency of government services, increased revenue potential, and reduced costs.

The Mission

The Alabama GIS Executive Council will foster the development of a spatial information capability for use by all jurisdictions and agencies to enhance decision-making processes. To ensure that the capability is sustainable, the Council will develop and implement a Strategic Plan with specific goals and objectives with measurable and actionable business plans.

The Vision

The State of Alabama will have a robust spatial information capability developed through a collaborative effort among the statewide geospatial community. This information will provide for effective operational, strategic, and executive decision-making to optimize the health and resilience of communities, provide access to public information, and enhance the safety, economy, environment, and quality of life in Alabama.

Strategic issues (6 Identified Focus Areas)

Governance –
What mechanisms are important to developing and sustaining Alabama's geospatial capability?

Framework Data –
How can we better assess all current geospatial information available in the state and make recommendations to reduce inefficiency and redundancy in geospatial information collection?

Data and Metadata Standards –
How can we develop better policies related to statewide data standards, to reinforce importance of adherence to data standards, and to develop strategies and policies for implementing metadata standards?

Data Access –
How can we create and distribute quality geospatial data and services across agencies at all levels within the State of Alabama?

Communication –
How can we establish a forum for statewide communication on geospatial activities and initiatives to build support for the Council, for the State Strategic Plan, and to generate best practices and return on investment (ROI) from the geospatial community?

Education/Outreach –
What methods are needed to inform the public and policy makers in Alabama about the strategic benefits of geospatial technologies and to promote technical and non-technical education related to those technologies?

INTRODUCTION

On November 27, 2007, Governor Bob Riley signed Executive Order 38 (Appendix G) establishing the Alabama Geographic Information Executive Council (AGI-EC) and the Alabama Geographic Information Advisory Committee (Advisory Committee). The membership in these entities was designed to ensure that state and local geospatial interests are represented.

The purpose of this statewide geographic information coordination effort is to establish policies relating to the use of geographic information, geospatial data, and related technologies. Further, it was conceived to foster cooperation among governmental agencies, academic institutions, and the private sector to improve the quality, access, cost-effectiveness, and utility of Alabama's geospatial capability. This effort will facilitate the deployment and use of geographic information as a strategic resource statewide.

The Governor received the Council's recommendations of appointees to serve as members of the Advisory Committee in February 2008. The Advisory Committee held its organizational meeting on April 23, 2008.

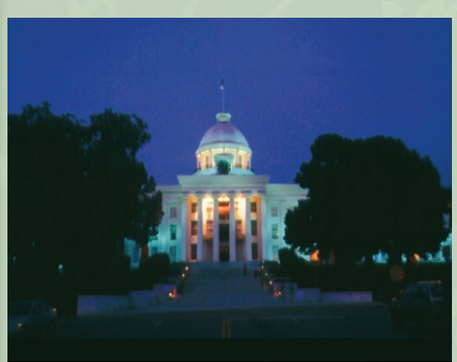
A very active committee membership includes representatives in the areas of water resources, air resources, agricultural resources, energy resources, cultural resources, land resources, mineral resources, environmental management, forestry, geology, health, transportation, local government, emergency management, planning, public safety, criminal justice, economic development, social services, utilities, waste management, homeland security, academia, conservation, and wildlife.

Coordination, as well as cooperation and collaboration, is essential now that geospatial technology is widely deployed across the state at all levels of government and is now fully integrated into the business models and work flows of many, many entities. There are substantial common interests to be served and mutual benefits, economies of scale, and cost savings to be gained through coordination at the state and local levels.

Strategic planning activities are necessary to reach consensus on directions for the development of a statewide strategic spatial information capability and to document strategies to reach agreed-upon goals and objectives for the coordination effort. A robust and comprehensive plan and implementation are crucial to successfully support agency operations, critical infrastructure protection, emergency management operations, environmental conservation, asset management, economic development, and public health and safety at the state and local levels.

Strategic planning is a critical element for articulating a shared vision and for building the partnerships necessary for disparate organizations to work together to achieve common goals. The key is to identify geospatial needs that are shared by many stakeholder groups. Effective strategic planning is essential for moving collaborative programs forward and gaining the necessary support or "buy-in" for required geospatial investments, which can be significant.

The strategic plan charts the future course of spatial information technology integration and development in the State of Alabama and sets forth the vision, mission, outcomes, objectives, and products for the Advisory Committee. The strategic plan represents the AGI-EC's reporting measures to the Governor for progress toward making spatial information technology easy for people to use; making sure the data and information are documented, discoverable, and available; and defining and evolving new and innovative ways to put it to use. The Advisory Committee's recommendations to the AGI-EC will be adopted into the Strategic Plan and will help the stakeholders lead Alabama into a spatially-enabled information age for the State and its citizens.



GOVERNANCE

Collaboration, communication, and coordination across all levels of government in Alabama will greatly enhance the state's geospatial capability and will help to leverage the substantial investments already being made for the acquisition of geospatial data for various applications. **The effective application of geospatial technology is key to our future success** and can provide long-term economic and societal benefits to the State of Alabama and its citizens by significantly increasing the effectiveness and efficiency of government services, increasing revenue potential, and reducing costs in a variety of areas and for a number of diverse applications. A sustained coordination effort will serve to maximize these benefits, while facilitating the development of current, accurate geospatial data.

The Alabama Geographic Information Executive Council (AGI-EC) was established by Governor Bob Riley in Executive Order 38 (Appendix G) to establish policies relating to the use of geographic information, geospatial data, and related technologies; to further cooperation among state, federal, and local government agencies, academic institutions, and the private sector to improve the quality, access, cost-effectiveness, and utility of Alabama's geographic information; and to facilitate the employment of geographic information as a strategic resource in the State. Through its activities, the AGI-EC will seek to coordinate the development of geospatial data and capability for use by all jurisdictions and agencies within the State of Alabama in a variety of applications. This Strategic Plan identifies specific goals, objectives, and metrics to establish and sustain a statewide coordination effort.

Goal 1 - Oversight

Define and establish the Bylaws of the GIS Executive Council

Strategy: The Advisory Committee will work with the GIS Executive Council to develop Bylaws for Council.

Measure: The Council will review, approve, and adopt the Bylaws

Timeline: Adoption by June 2010

Goal 2 - Leadership
Provide leadership throughout Alabama on strategic priorities to develop the geospatial capability that will improve the quality of services and opportunities for Alabama citizens.

Strategy: *Identify an executive champion that will assist in promoting this effort in the state.*

Measure: All stakeholders actively seek out geospatial champions through all forms of communications (meetings, presentations, emails, phone calls).

Timeline: July 2010

Strategy: Identify relevant committees and legislators who could understand and promote the geospatial initiative.

Measure: All stakeholders actively seek out geospatial champions through all forms of communications (meetings, presentations, emails, phone calls).

Timeline: July 2010

Strategy: *Identify local government officials who can be champions from the County and Municipal perspective.*

Measure: All stakeholders actively seek out geospatial champions through all forms of communications (meetings, presentations, emails, phone calls).

Timeline: December 2010

Goal 3 - Implementation
Establish a sustainable framework to implement and support the development of the State's geospatial capability and support geospatial initiatives for the state of Alabama that also support activities that can be leveraged by all levels of government (local, county, state, and federal).

Strategy: *Establish Subcommittees to drive the achievement of key objectives.*

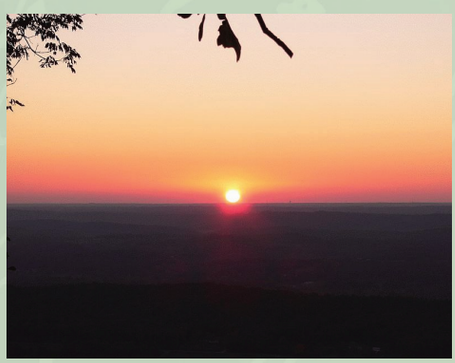
Measure: Subcommittees are formed where needed that will drive planning and implementation process of key objectives in the strategic plan.

Timeline: June 2010

Strategy: Oversee the development of business plans developed by subcommittees organized to address specific needs and requirements.

Measure: Initiate a structure to allow periodic review and guidance of all business plan development by the Advisory Committee and ultimately seek review, approval, and adoption by the GIS Executive Council.

Timeline: Subcommittee on Imagery Business Plan to be developed by December 2010. Additional business plans will be ongoing.



FRAMEWORK DATA

Identification of Data Layer Types

Framework data layers are the backbone in application of geospatial technology. Nationwide, it has been recognized that geospatial applications and requirements across many different disciplines and user communities have a recurring need for a few fundamental themes of data—the "framework." These include digital orthoimagery, elevation, cadastre (ownership parcels), transportation (road networks), geodetic control, hydrography (streams and water bodies), and governmental units. These layers provide the background for most maps and GIS applications and, thus, the acquisition and maintenance of framework data layers are essential parts of any GIS plan. The framework layers represent the elements of the real world that are important for visualization and data analysis. Accurate, current framework datasets enable users to evaluate current conditions, forecast for the future, and plan to meet achievable goals. The AGI-EC has identified acquisition and maintenance of framework data layers as a high priority for Alabama. Further, the State of Alabama is committed to a strategy that is consistent with development of the National Spatial Data Infrastructure (NSDI) and realizes that its contributions will be made through a long-term, iterative process of data acquisition, update, and maintenance.

Additional data infrastructure layers have been identified as important, albeit more specialized in terms of applications and potential users. These layers can be grouped into several functional categories as listed below. These lists of ancillary or thematic data layers are, by their very nature and potential uses, dynamic and, thus, shall change as appropriate to meet the needs of various segments of the GIS user community. The custodians, stewards, and/or the authoritative sources for both the NSDI framework data layers and the additional data layers shall be determined as part of the coordination efforts of AGI-EC. A statewide inventory to locate and evaluate existing data that address Alabama's needs and may be appropriate for the NSDI will be conducted and data gaps will be identified. Based on the results of this inventory, a plan for framework data acquisition, update, and maintenance will be developed. In order to ensure that framework data layers broadly meet the needs of the user community, a set of appropriate data standards will be established to insure data accuracy, compatibility, accessibility, and consistency. These standards will also adhere to the NSDI standards for content. It is important that framework and ancillary data layers reside, to the degree possible and appropriate, in the public domain and that the user community and other stakeholders have ready access to these data via the Internet and other media. Procedures, technology, and guidelines that provide for integration, sharing, retention, and use of these data shall be established.

Important data layers that have been identified as priorities:

Framework data layers - Digital Ortho imagery, Cadastral Data, Geodetic Control, Elevation, Transportation, Governmental Units (political boundaries), and Hydrography

Additional data layers as identified by the State consist of data in the following categories:

Locational data layers - police, fire, ambulance, critical infrastructure, schools, hospitals, aged care, community centers, key buildings, sports facilities, etc.

Infrastructure layers - Electricity, substations, gas, water, hydrants, sewerage, storm water, telecoms, radios, towers, etc.

Dynamic or derivative data layers - Demography, employment, valuations, public transport schedules, pedestrians, floor plans, hazards models, cameras, radar, tracking, weather, etc.

Historic Data - Provide guidelines and recommendations on procedures for the capture, archiving, and retrieval of pertinent historic information.

Goal 1
Establish subcommittee for Framework and Ancillary Data issues.

Strategy: Solicit recommendations from the Advisory Committee members for individuals to serve on the Subcommittee to address issues associated with Framework and other priority data.

Measure: A subcommittee is established and begins its work.

Timeline: June 2010

Goal 2
Establish mechanisms to measure the state's progress with regard to fulfilling the objectives of the National Spatial Data Infrastructure (NSDI) framework, as well as the state's other priority data needs.

Strategy: *Inventory the existing framework and ancillary data holdings and compilation of inventory results.*

Measure: Record status of framework data's NSDI suitability in the state inventory holdings list.

Timeline: All State agencies shall complete reporting of data suitable for inclusion into the NSDI by December 1, 2010 and all county and local governments shall be completed by June 1, 2011.

Strategy: Increase participation in NSDI framework data activities.

Measure: Build data sharing environments through partnerships across the state, follow data and operating standards, formulate templates for framework development where applicable.

Timeline: Ongoing

Goal 3

Gaps in the data inventory will be identified throughout the process of goals 1, 2, and 3 and identified needs will be prioritized.

Strategy: Identify data through survey and needs assessment across the state and cross-reference them to the state data holdings, identifying incomplete or unavailable data that are needed by the widest audience and are of the greatest utility to data consumers.

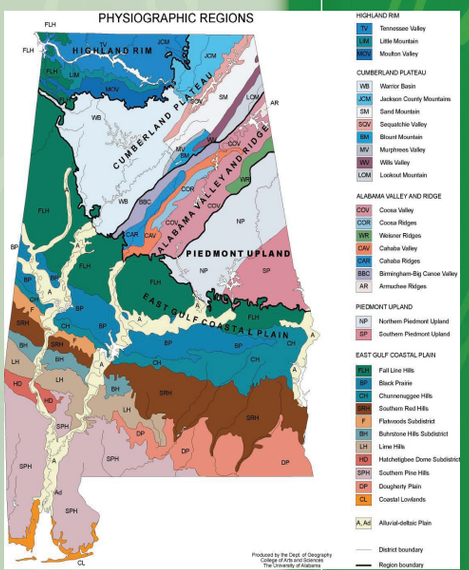
Measure: Completion of data survey and needs assessment, completion of the data holdings inventory, and presentation to the Council (e.g., Centerline project, 9-1-1 addressing, updated imagery, better resolution elevation data, etc).

Timeline: July 2012.

Strategy: Once data surveys and needs assessments have been completed, the council shall rank needs based on criteria to be established.

Measure: Completion of prioritized needs published to the web.

Timeline: July 2012.



METADATA STANDARDS

Geospatial metadata records important information about the geospatial data: who created it, when it was created, the purpose for which it was created, spatial characteristics of the data, and what the data represents. **Without metadata, geospatial data may be misused or not be used to full potential.** By federal Executive Order 12096, all federal agencies are ordered to use the FGDC-STD-001-1998 metadata standard to document all geospatial data. Because all federal and many other state governments use this FGDC geospatial metadata standard, it is in Alabama's best interest to also adopt this standard for ensuring geospatial uniformity and quality.

Although FGDC metadata contains numerous fields for data descriptors that are useful in characterizing the geospatial data, at minimum, metadata for geospatial data that is published and/or shared with others should include the following: Citation, Description, Spatial Reference Information, Contact Information, Access and Use Constraints, and Attributes. This data will allow users of this geospatial data to know what the data is, what projection the data holds, who created the data, how the data can be properly used while protecting liability and privacy of the data originator and privacy of the individual, and what the data in the attribute table describes.

Metadata records that are compliant with the national standard in terms of content and format also facilitate the ability to search for and discover these records using standardized and widely used web-based metadata search tools, which, in turn, provide the basis for data discovery and access.

Goal 1

Encourage use of Federal Geographic Data Committee (FGDC)-compliant metadata as the data quality standard for all Alabama geospatial data published and shared with the public or distributed outside the originator.

Strategy: Encourage the use of FGDC-compliant metadata by sharing and distributing examples of vector and raster geospatial data with accompanying FGDC-compliant metadata and by facilitating coordination of metadata training.

Measure: Estimate and report percentage of data holdings with FGDC-compliant metadata within the state on a yearly basis.

Timeline: 3 years

Goal 2

Define/support metadata collection to make data more searchable/discoverable.

Strategy: Encourage the use of FGDC-compliant metadata by sharing and distributing examples of vector and raster geospatial data with accompanying FGDC-compliant metadata and by facilitating coordination of metadata training.

Measure: Estimate and report percentages of data holdings within the state that are searchable and discoverable on a yearly basis.

Strategy: *Outreach and education programs for the capture and recording of metadata and quality standards*

Measure: Number of outreach and training seminars and workshops conducted at the state and local level

Timeline: Ongoing, initial cycle of training completed within 2 years

Goal 3
Facilitate metadata development for inventory databases.

Strategy: *Increase utility of data holdings by working with data producers and providers to aid in the development of Federal Geographic Data Committee (FGDC)-compliant metadata for their data contributions.*

Measure: Percent of data holdings with FGDC-compliant metadata within the state.

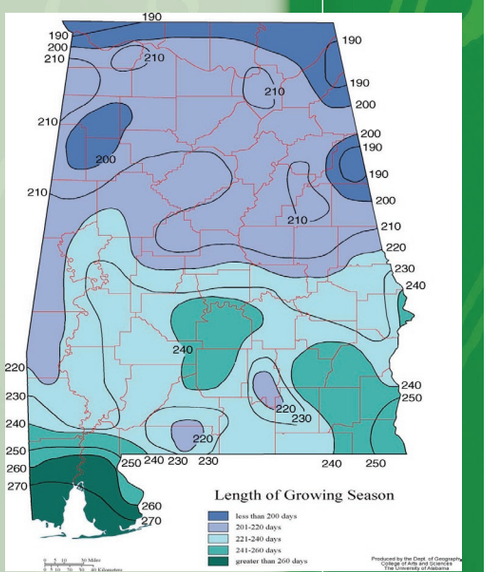
Timeline: Ongoing

Goal 4
Establish data accessibility standards to increase access to high value, machine readable datasets generated and held by the State and local government that connects to data or services.

Strategy: *Research and perform outreach on existing data catalogs and sites to observe best practices and common data standards used to connect metadata to data in an open and transparent form.*

Measure: Number of accessible datasets available at the state and local level and consistency of data availability, types, and services.

Timeline: Ongoing, initial standards available within 1 year



DATA STANDARDS

The Council will empower the advisory committee to assist in the development of policies related to appropriate and useful statewide data standards, **to reinforce importance of adherence to data standards, as appropriate,** and to develop strategies and policies for implementing data standards. Standards (i.e., accuracy, precision, resolution, etc.) shall be described in the specifications for data acquisitions and, ultimately, in the metadata that accompanies the data. The Council is cognizant of the fact that data standards for a particular application are dictated by the requirements of the application but will put in place mechanisms to encourage data standards that address the broadest possible needs of the user community and that provide the greatest mutual benefit whenever possible.

Goal 1

Solicit the appointment of a Technical Subcommittee on Standards to further define and fulfill the goals.

Strategy: Solicit recommendations from the Advisory Committee members for individuals to serve on the Subcommittee on Standards

Measure: A subcommittee is established and begins work

Timeline: June 2010

Goal 2

Establish and apply data quality standards for new data acquisitions

Strategy: The Technical Subcommittee on Standards shall have the responsibility of establishing data quality standards for data acquisition where needed and as appropriate.

Measure: Data quality standards are included where needed in data acquisition documentation to ensure that data deliverables comply with the State's data quality standards.

Timeline: Ongoing as necessary

DATA ACCESS

To the degree possible, geospatial data sets collected with public funds should reside in the public domain; i.e., should be freely available and easily accessible as shared strategic assets, especially among governmental entities that can use these data to increase the effectiveness and efficiency of government services, enhance quality of life for the State's citizens, better manage and protect important resources, increase revenue potential, and reduce costs of services. The full potential benefits of geospatial capabilities and assets can never be realized if the requisite data needed for analysis and visualization is sequestered from the overall user community and not freely available for appropriate use through shared access.

With the maturation of the Internet and associated web-based geospatial tools, the mechanics of data visualization, access, and sharing have become relatively simple and straightforward. Virtual Alabama, Alabama's statewide user-defined operating picture, for example, is an excellent data visualization tool that allows technical and non-technical users alike to discover, test, and evaluate existing data sets to determine suitability of use in various applications. More information about Virtual Alabama can be found in Appendix H.

The fundamental vehicle for data sharing and access, as discussed previously, is metadata. Metadata records that are format- and content- compliant with the metadata standard are easily searchable with web-based metadata search tools, which can be either text-based or map-based. Often, the tools are enabled to allow immediate download of particular data sets or, alternatively, metadata records can contain data access information, such as point-of-contact or other instructions on obtaining data.

The AGI-EC is cognizant that the primary impediments to data access and sharing are not technical. Information, properly formatted, can be readily searched for and discovered and even large datasets can be easily transferred via the Internet or other appropriate media, as the situation requires. Rather, the primary challenges in Alabama stem from 1) the general lack of current, accurate, scale- or resolution-appropriate data for key framework layers to be shared and accessed and 2) institutional barriers to effective and efficient data sharing. The AGI-EC will develop and implement policies and procedures that encourage data sharing and, where appropriate, open access to data assets, for the common good and mutual benefit. Further, AGI-EC will encourage the use and enhancement of existing resources, such as Virtual Alabama, to facilitate data search and discovery and, ultimately, data access and dissemination.

Goal 1

Organize strategies to support data sharing and dissemination among government agencies.

Strategy: Continue data discovery and brokering data sharing arrangements between data producers, data providers, and stakeholder groups. Make data available to all levels of government for operational use of the core function areas of: business function, modeling function, analysis function, and visualization.

Measure: Data holding inventory grows and data being shared increases.

Timeline: Ongoing

Goal 2
Develop a comprehensive, searchable interface strategy to make data and metadata holdings easily searchable and therefore discoverable and shared utilizing visualization technology.

Strategy: Increase utility of visualization for organizing, searching, and discovering data/metadata by thematically grouping data holdings and by developing a more comprehensive user experience for interaction with the metadata elements compiled for these data.

Measure: Completion of metadata for the identified layers and integration of metadata discovery strategies within the visualization platform. Post metadata catalog on web.

Timeline: Ongoing. Completion of interface strategy by January 2011.

Strategy: Establish key word search in FGDC metadata and metadata search tags.

Measure: More data is discoverable through search.

Timeline: Key word search capability completed by June 2010

Goal 3
Develop data sharing initiatives with federal and other agencies to increase the amount of data development funded by non-state sources.

Strategy: Identify federal and private grant opportunities (research or operational) in line with the objectives and direction of the agency database development activities that could be pursued. Compile these projects and provide a summary of these external monies.

Measure: A report summarizing those database development activities undertaken that were jointly or wholly funded from external funding sources to be submitted by the Committee to the Executive Council.

Timeline: Ongoing

COMMUNICATION

The AGI-EC recognizes that **communication is critically important to a successful geospatial coordination effort** and that effective communication will result in enhanced cooperation and collaboration among the various stakeholders in the geospatial community. Further, a well-executed communication strategy will serve to convey benefits of the AGI-EC activities and initiatives to decision makers, thereby generating support for geospatial efforts in Alabama.

The communication strategy will employ several methodologies to disseminate information and provide visibility regarding AGI-EC and other geospatial activities and initiatives in Alabama. These will include stakeholder meetings under the AGI-EC and development of communications materials for distribution via print and electronic media. Information provided by stakeholder agencies will be compiled to illustrate the value of collaborative development and access to geospatial information and services across the state, as well as case studies in the application of geospatial technology in various areas of state and local government, business, and education.

The communications materials will provide the basis for the creation of the Statewide Geospatial Portfolio (SGP), which will serve as a means for communicating the current state of statewide geospatial capability development, assist grant preparers with documentation needed to communicate the capability and capacity, and assist stakeholders in gaining a better understanding for what currently exists when seeking to create future collaborative projects. Further, SGP will assist the AGI-EC and its committees in communication with federal agencies and other national entities, such as the FGDC Coordination Group, National States Geographic Information Council (NSGIC), and others relative to the Alabama's geospatial coordination effort and activities and initiatives underway in Alabama.

The materials developed as part the communications strategy will also assist AGI-EC in its reporting requirements to the Governor and Alabama State Legislature. Additional target audiences for the communications plan include tribal, local and state governments, and non-geospatial organizations.

Goal 1

Increase awareness of the importance of creating and sharing geospatial information among stakeholders and the user community. Establish a web-based presence to provide visibility regarding AGI-EC and other geospatial activities and initiatives in Alabama. Develop electronic forum on the site for agencies at all levels of government, as well as other stakeholders, to participate in AGI-EC activities and initiatives.

Strategy: Increase the utility of the Web site for the Council to post information such as meeting dates, meeting agendas, meeting minutes, and Committee activities, in a timely manner. Set up option to sign up for virtual mailing list to receive updates, follow meetings, provide blog entry space. Create area on the Web site to post information suitable for public consumption.

Measure: Web site established. Publish public information from the Forum site and ensure it is searchable and reachable from a distinct uniform resource locator (URL) and Web site. Track contributions to and activity on Web pages.

Timeline: 1 year

Goal 2
Build support from elected officials and others for Geospatial Strategic Plan
(Consult Mayors, City Councils, and County Commissions) through stakeholder meetings.

Strategy: Conduct stakeholder meetings and increase presence at conferences and events utilizing state geospatial portfolio, use case white papers, presentations, publications, and other collateral material to promote Council activities and initiatives. Develop articles and participate in different media venues. Use written communication through the Executive Council to provide annual updates to the Governor.

Measure: Completion and submission of updates to the Council. Track number, size, and type of conferences attended. Monitor posting of white papers, standards, plans, and the like on the Web site and in appropriate media outlets.

Timeline: Ongoing

Goal 3
Showcase Geospatial Best Practices and use cases by developing a State Geospatial Portfolio

Strategy: Compile project fact sheets/white papers into a Statewide Geospatial Portfolio (SGP). Utilize SGP as primary outreach material for supporting conferences, facilitating grant writing, and proposal support. Organize strategies to support communications between Advisory Committee and Executive Council, member agencies, and the public and national levels.

Measure: Completion of state geospatial portfolio. Increased awareness of geospatial activities within the state has significantly risen.

Timeline: One year for initial goal and ongoing

Education/Outreach –

The AGI-EC recognizes that, in addition to communication, **education and outreach efforts are necessary to inform the broad stakeholder communities about Council and other geospatial activities in the state.** To this end, the AGI-EC will develop informative and educational outreach programs designed to reach specific target audiences. These programs will seek to inform the public and to engage municipal, county, state, and private entities to promote support for the AGI-EC activities and goals and objectives.

Providing education resources and opportunities is another critical component for the success of the AGI-EC. All stakeholders and users of the data at every level of government must be provided easy access to education and training to efficiently and effectively contribute to and utilize the data, using established standards and procedures.

Although education and outreach are important at all levels, special focus must be given to the GIS providers and users at every level of local government. The leadership of the entities that provide services to the citizenry at the local level must be informed and educated on how GIS technologies can help them more efficiently provide their respective services.

AGI-EC education and outreach programs will seek to encourage the implementation and advancement of national level initiatives, such as FGDC-supported activities regarding metadata, framework layers, and standardization through training and other educational initiatives. Education and outreach activities will include presentations and discussions at industry conferences, train-the-trainer workshops, etc. The academic community will be engaged to develop implementation strategies for framework integration and to provide guidance on alternative training methods, including online and distributed network delivery. All education and outreach activities will be coordinated with communications efforts discussed above, thus insuring an effective and efficient program to disseminate knowledge and provide awareness of AGI-EC and geospatial activities and programs.

Goal 1

Establish a Subcommittee on Education and Outreach to further define and fulfill the goals.

Strategy: *Solicit recommendations from the Advisory Committee members for individuals to serve on the Subcommittee on Education and Outreach*

Measure: A subcommittee is established and begins work

Timeline: June 2010

Goal 2

Organize outreach and education programs specifically targeted at local level authorities and stakeholders (e.g., Economic development, local schools, county engineering, law enforcement, public utilities, and emergency management). Provide outreach programs specifically designed to inform citizenry about GIS issues and opportunities.

Strategy: Encourage participation in local level outreach programs by working with respective professional associations. Develop introductory GIS materials, handouts, and informational materials. Focus efforts to emphasize the important role GIS technology can play to improve efficiency in their area of service (e.g. better response during disaster situations and post-disaster recovery).

Measure: Track the effectiveness of local level outreach programs with improvements in specific regions and counties reported to the Council annually.

Timeline: Ongoing.

Goal 3

Organize and host the state GIS conference and encourage participation in GIS Day events. Identify conferences and events in which the Committee and Council representatives can participate.

Strategy: Plan and organize activities to include organization and participation in an annual State-sponsored geospatial conference, regional and national conferences and educational workshops. Identify conferences and events suitable for Committee and Council member participation.

Measure: Success in planning, organizing conference. List schedule of conferences on the Forum and log conferences attended by membership as representatives of the Committee and Council.

Timeline: First state conference in fall of 2010, then annually

Goal 4

Increase awareness of Geographic Information Systems degree programs, certificates, and training opportunities at colleges and universities within the State of Alabama, state government training facilities, and other training facilities. Promote geospatial careers and certification through educational curriculums and provide continuing education for geospatial professionals.

Strategy: Identify and post an inventory of training opportunities on the Council Web site and update quarterly. Work with education and workforce development sources to develop and promote GIS training and certification in Alabama.

Measure: Verify information is available and that quarterly updates are made.

Timeline: Ongoing

NEXT STEPS

In January 2010 the Committee filed an application for the 2010 National Spatial Data Infrastructure (NSDI) Cooperative Agreement Program (CAP)3 grant entitled *"Strategic and Business Plan Development in Support of the NSDI Future Directions Fifty States Initiative."* If successful, the grant will enable the Committee to focus on further development of the Strategic Plan and Business Plans and will allow the Committee to explore: successful examples of coordination and establishment of an effective council; an all-inclusive program to improve the quality, access, cost-effectiveness, and utility of Alabama's geographic resources in the State. The added value of coordinating these plans will provide extraordinary access and availability of geospatial information and further efforts to develop a State Spatial Data Infrastructure (SSDI) capable of providing meaningful contributions to the National Spatial Data Infrastructure. Moreover, the funding will enable facilitation of a proper Strengths, Weakness, Opportunities, and Threats (SWOT) analysis will enable statewide user and data surveys, and will forward the goals and objectives of the Fifty State Initiative in development of the NSDI. Up to seven cooperative agreements awards will be made in this round of grant funding.

The Committee is exploring additional grant prospects with NDSI and is considering application submission for Category 7: Demonstration of Geospatial Data Partnerships across Local, State, and Federal Government and Category 6 FGDC Standards Development and Implementation Assistance and Outreach (excluding Metadata Standards) in the 2011 NSDI CAP round of grants. Grant announcements are issued in October of each year.

DEFINITIONS

- **Alabama Geographic Information Executive Council**, AGI-EC, the Council – the Council is comprised of twelve (12) state agencies, chairman, and members appointed by the Governor who serve two (2) year terms to operate as an independent council authorized by Executive Order 38. The Executive Council maintains the bylaws and governs its proceedings to develop and establish policies regarding the utilization of geographic information, GIS systems, and other related technology.

- **Alabama Geographic Information Advisory Committee, the Advisory Committee** – is created to ensure that stakeholder interests, state, local, federal, academic, private and others in the field of geographic information and technology are represented in the Council.

- **Ancillary Data** – in regards to framework and thematic data, ancillary data are additional data layers or tables that have been identified as important and more specialized than the framework data layers that support common applications and potential use of dynamic or frequently changing data.

- **Annual Report** – as mandated by Executive Order 38, the Strategic Plan is considered the Executive Council's Annual Report to the Governor and provides a path to progress for the State.

- **Bylaws** – as identified by Executive Order 38, the Alabama Geographic Information Executive Council shall adopt bylaws to govern its proceedings accordingly.

- **Communication** – a strategic issue and focus area of the strategic plan, communication will enhance cooperation and collaboration among the various stakeholders in the geospatial community, establishing a forum for statewide information on geospatial activities and initiatives.

- **Data Acquisition** – the process of acquiring geospatial data through the coordination of Council, strategic and business plans, and/or geospatial stakeholders.

- **Data Standards** – a strategic issue and focus area of the strategic plan, is a reference to the evaluation of statewide data standards that facilitate the development, sharing, and use of geospatial data.Data Access – a strategic issue and focus area of the strategic plan, the process by which the State develops and implements guidelines for origination and dissemination of geospatial data for public and state use that provide a method for balancing the security risks and benefits of geospatial data dissemination and where possible freely available and accessible in the public domain.

- **Education/Outreach** – a strategic issue and focus area of the strategic plan, to facilitate the efforts necessary to inform the broad stakeholder communities and public about the Council and other geospatial activities in the state.

DEFINITIONS

- **Executive Order 38** (or Executive Order) – passed by Governor Bob Riley established the Geographic Information Council, Geographic Information Advisory Committee, and the framework for the purpose of statewide geographic information coordination efforts to establish policies, further cooperation, and improve quality, access, cost-effectiveness, and utility of Alabama's geographic information as a strategic resource in the State.

- **Executive Order 12096** – the White House Executive Order, April 11, 1994 regarding coordinating geographic data acquisition and access: the National Performance Review recommends the implementation of a coordinated NSDI and to develop strategies for maximizing cooperative participatory efforts with States, local, and tribal governments.

- **Federal Geographic Data Committee** (FGDC) – was established by Office of Management and Budget Circular A-16 to promote the coordinated development, use, sharing, and dissemination of geographic data. The FGDC is composed of representatives from fifteen (15) prominent federal agencies and participating geospatial organizations with established subcommittees coordinating on key framework data categories and working groups that address issues that transcend framework data categories.

- **FGDC-STD-001-1998 Metadata Standard** – (revised June 1998)is the FGDC content standard for digital geospatial metadata established by the Office of Management and Budget Circular A-16. The Federal Geographic Data Committee (FGDC) promotes the coordinated development, use, sharing, and dissemination of geographic data.

- **Framework Data** – a strategic issue and focus area of the strategic plan, as defined by the National Spatial Data Infrastructure (NSDI), the famework is an initiative to develop a readily available set of basic geographic data. It includes the information, operational environment, and technology to provide access to these data, and the institutional setting to sustain its development.

- **Geospatial** – is a term widely used to describe the combination of spatial software and analytical methods with terrestrial or geographic datasets.

- **Geospatial Information** – is a collection or discipline of knowledge as it relates to geographic data that conveys information about or related to location or place and the evaluation or matter of its use.

- **Geospatial Data** –information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth. The information may be derived from - among other things - remote sensing, mapping, and surveying technologies.

- **Governance** – a strategic issue and focus area of the strategic plan, governance is the organizational structure, leadership and authority roles, and all associated regulations, policies, and procedures for management, coordination, and operation of the State's geographic information as a strategic resource.

DEFINITIONS

- **Metadata** – Descriptive information about the content, quality, condition, and other characteristics of data.

- **Metadata Standards** – a strategic issue and focus area of the strategic plan, is a reference to the evaluation of statewide data standards as they pertain to record management, policies, and procedures of metadata for geographic information. By federal Executive Order 12096, all federal agencies are ordered to use the FGDC-STD-001-1998 metadata standard to document all geospatial data.

- **National Spatial Data Infrastructure** (NSDI) – the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data. The NSDI is an umbrella under which organizations and technology interact to foster activities for using, managing, and producing geographic data.

- **Spatial Information Capability** (The Capability) – the capacity of enabling all levels of government to enhance decision making with sustainable strategic and business plans through a collaborative effort among the statewide geospatial community for effective operational, strategic and executive use of geospatial information and technology that provides access to public information and enhances the quality of life in Alabama.

- **Stakeholder** – is persons with interest in the activities, planning and business process of the Geographic Information Executive council with stakeholders at all levels of government and the private sector, to include public utilities, business professionals, industry leaders and others with a vested interest in GIS.

- **State Spatial Data Infrastructure** (SSDI) – refers to the collection of State framework and ancillary data layers as a strategic resource of geographic information in the State, supported by the Strategic and Business Plans of the Geographic Information Executive Council.

- **Strategic Plan** – a document developed with the intent to chart the future course of geospatial information technology integration and development in Alabama, and sets forth the vision, mission, outcome, objectives, and products for the Alabama Geographic Information Executive Council. It is the formal consideration of the State's future course in geographic information and technology.

- **Subcommittee** – as identified in Executive Order 38, the Council shall subdivide itself as necessary into standing committees and workgroups to accomplish the stated purposes of the Council. A Subcommittee is recommended by the Advisory Committee to the Executive Council and appointed by the Governor.

APPENDICES

A - Background
B - Planning Methodology
C - Members of the GIS Advisory Committee
D - Members of the GIS Executive Council
E - State Geospatial Portfolio (in progress)
F - Member Organizational Profiles
G - Executive Order Number 38
H - Virtual Alabama
I - Core Function Areas and Purpose Classification for Geospatial information

APPENDIX A

BACKGROUND

A Brief History of Geospatial Activities in Alabama

In the late 1990's, Alabama lagged behind most other states in terms of geospatial coordination. Nearly every other state already had a mechanism to support geospatial coordination. Since 1994, only four states were without a formal or ad hoc coordinating body. Despite the lack of formal coordination, Alabama benefited from many geographic data resources, deep pockets of geospatial expertise, and a number of localized coordination efforts. The value of these resources needed to be substantially leveraged by a policy-driven coordination effort at the State level. The central issue facing Alabama was how to organize and sustain a government-sanctioned effort representing all levels of government that would take advantage of the analytical power of Geographic Information Systems combined with visualization for situational awareness and understanding to improve government services, drive down associated costs, and stimulate economic development. Recognizing the potential benefits to be gained, former Governor Don Siegelman issued Executive Order No. 68 on March 21, 2002, which established the Alabama Geographic Information Council (AGIC) for a limited duration. The purpose of AGIC was to educate its members about the potential benefits of GIS and to assess the need for and potential use of GIS technology by the members. Executive Order 68 tasked the AGIC to submit a report to the Governor on September 21, 2002, and specified that the Council would cease to exist after the report was submitted. In their final report AGIC was tasked to include the following: a needs assessment by each State agency represented on AGIC regarding GIS; Recommendations with respect to the future organizational structure of AGIC; Recommendations for implementing a comprehensive GIS strategy.

No action was taken on the recommendations contained within the AGIC Report of September 21, 2002. After submitting its report, the former AGIC was dissolved and nothing was done to either maintain its existence through continuance and /or amendment of Executive Order 68.

In 2004, the Alabama Department of Revenue (ADOR), in coordination with Aviation & Missile Research and Development Engineering Center (AMRDEC) and with the support of the Intergraph Corporation, completed the development of a statewide GIS strategic business plan.

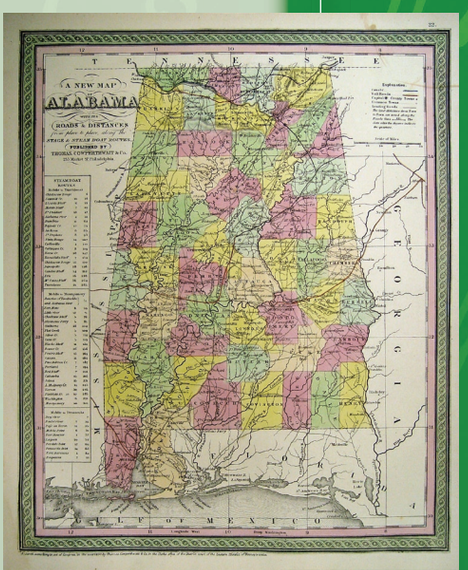
ADOR's GIS strategic business plan echoed many of the same themes as the previous AGIC findings by addressing the following topics: a statement of the mission/goals of GIS coordination, an overview of the current status of GIS coordination in Alabama, an evaluation of the users and data needs assessment, a discussion of issues and problems encountered in other states, strategies and objectives for statewide GIS coordination. The strategic business plan for implementing GIS statewide in Alabama was completed in 2005.

An interdepartmental agreement to commit resources toward the coordination and development of geospatial data between the Alabama Department of Economic and Community Affairs (ADECA), AEMA, Alabama Department of Transportation (ALDOT), and ADOR was signed in 2004. These agencies committed resources toward the development of a more permanent and formal mechanism of GIS coordination and cooperation.

In late 2004, representatives of over 25 state and local agencies came together in a series of meetings to discuss statewide data sharing strategies among agencies. During the meetings, it was discovered that several agencies had initiatives underway to reinstate a coordinating body within the state. The group joined forces to draft not only the initiative but also an Executive Order to be forwarded to the Governor's office. The documents were completed and presented for consideration to Governor Riley in early 2005.

In July of 2005, the Alabama Metadata Portal was developed through a collaborative effort of the Geological Survey of Alabama (GSA) and the Alabama Emergency Management Agency (AEMA). The Portal provides the ability for the state to publish information relating to geospatial data and to share geospatial resources by finding access to developed datasets.

Governor Riley charged the Alabama Department of Homeland Security (ALDHS) in fall of 2005 with determining what critical homeland security data the state already possessed and, by extension, what data it should focus on acquiring. Tasked with working across departmental lines as well as at state and local levels of government, ALDHS indentified the need for a secure, common information sharing platform on which to compile and evaluate the data that different departments and groups had collected. Considering the significant wealth gap across the State's counties, this information sharing platform also needed to be relatively inexpensive so that ALDHS could offer it free of charge to county governments and municipalities. The Department leveraged visualization technology to build the first of its kind statewide system to provide operational support and situational awareness and understanding. In what has been called "One of the most comprehensive state geospatial planning databases in the country" by Wyatt Cash, editor of Government Computing News magazine, Virtual Alabama now serves over 5,000 users representing over 1450 agencies at all levels of government. In 17 months time, the system contained imagery and infrastructure data from each of the 67 counties. On November 28, 2007, Governor Bob Riley held a press conference to formally unveil the program.



APPENDIX B

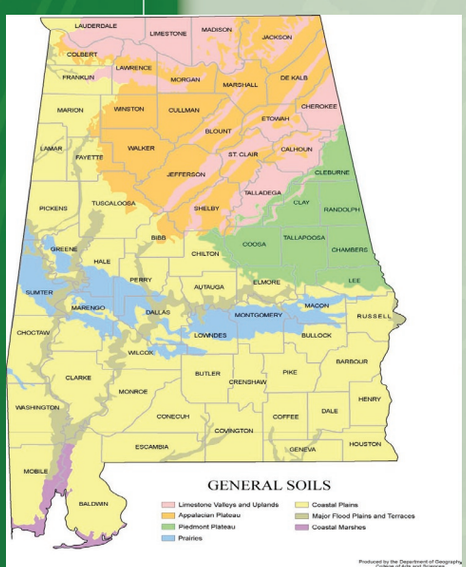
Strategic Planning Approach

The plan was developed with input and consensus of the Alabama GIS Advisory Committee members. Subcommittees are being formed as needed for the purpose of drafting specific focus area components of the strategic plan and program business plans.

The GIS Advisory Committee held five planning work sessions, developed a draft of this strategic plan, and conducted periodic review sessions with the GIS Executive Council to obtain feedback and guidance in the plan development.

The Committee began the strategic plan development process with the reevaluation of the original issues of the 2004 ADOR Strategic Plan as well as consideration of the Governor's expectations for spatial information technology's role in government operations as set forth in Executive Order No. 38. The committee then evaluated the current state of geospatial capability within the agencies and discussed barriers that have precluded information sharing in the past. Using this information and the best judgment of the council, committee members established priority goals and prioritized the list of themes as follows:

- Governance
- Framework Data
- Data and Metadata Standards
- Data Access
- Communication
- Education and Outreach



APPENDIX C

Members of the GIS Advisory Committee

Chair:
Chris Johnson, GISP, Senior VP, Geospatial Training and Application Center,
U.S. Space & Rocket Center

Vice Chair:
Phillip Henderson, GIS Manager, Alabama Department of Economic and Community Affairs

Secretary:
Bill Bass, Division Director, Property Tax, Alabama Department of Revenue

Art Faulkner, State 9-1-1 Coordinator, Alabama Department of Homeland Security

Lynn Ford, GIS Coordinator, Alabama Department of Environmental Management

Fred Springall, Division Chief, Alabama Emergency Management Agency

JT Jenkins, Commander, Director, Alabama Marine Police, Alabama Department of Conservation and Natural Resources

Jim Burns, Chief Information Officer, Alabama Department of Finance

Danny Manley, GIS and Emergency Support Manager, Alabama Department of Transportation

Curt Terling, IT Director, Alabama Department of Public Safety

Ben Mullins, GIS Manager, Alabama Department of Agriculture and Industry

Don Fisher, Assistant Director, Alabama Department of Industrial Relations

Maury Mitchell, Director, Alabama Criminal Justice Information Center

Tracey Berezansky, Assistant Director, Alabama Department of Archives and History

Tammy Coates, Special Projects Coordinator, Alabama Department of Children's Affairs

Col. Dennis Butters, Director of Military Support, Alabama National Guard

Tim Hatch, Director Environmental Programs, Alabama Department of Public Health

Linda Swann, Assistant Director, Alabama Development Office

Walter Hutcheson, Director, Technology Services, Alabama Commission for Higher Education

William "Bill" Christie, GIS Analyst, Alabama Forestry Commission

Dr. Randall C. Johnson, Director, Alabama Surface Mining Commission

Robert "Bob" Mink, Deputy Director, Geological Survey of Alabama

Bonnie Shanholtzer, Staff Director, Legislative Reapportionment Office

Regina Dinger, Executive Director, Alabama Board of Licensure for Professional Engineers and Land Surveyors

Paul Mask, Assistant Director, Agriculture Forestry and Natural Resources, Alabama Cooperative Extension System

Bill Tucker, Executive Director, Central Alabama Regional Planning Commission

Max Armstrong, Director, Blount County Emergency Management Agency/9-1-1, Alabama Association of 9-1-1 Districts

Dan Long, Director, Calhoun County Emergency Management Agency, President-Alabama Association of Emergency Managers

Ryan Pecharka, GIS City of Prattville, Representative, Alabama League of Municipalities

Tracy Roberts, General Counsel, Alabama League of Municipalities

David Palmer, County Engineer, Franklin County, Representing, Alabama Association of County Commissioners

Kristie Stamnes, Director, Covington County Emergency Management Agency, Alabama Association of County Commissioners

Debbie Wood, County Commissioner, Chambers County Administrator, Alabama Association of County Commissioners

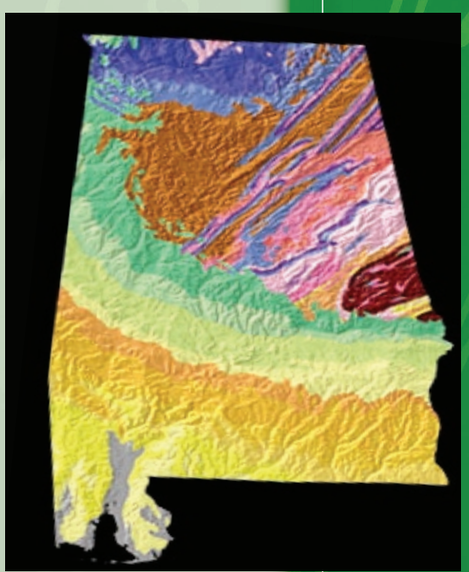
Representative, Executive Director, Electric Cities of Alabama

George Marodis, USDA Source Water Protection, Alabama Rural Water Association

APPENDIX D

Members of the Alabama Geographic Information Executive Council (AGI-EC)

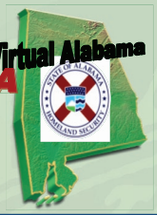
The voting membership of the council shall consist of the following: The directors, or their designees of, the Alabama Department of Finance, the Alabama Department of Revenue, the Alabama Department of Transportation, the Alabama Emergency Management Agency, the Alabama Department of Environmental Management, the Alabama Department of Homeland Security, the Alabama Department of Conservation and Natural Resources, the Alabama Department of Economic and Community Affairs, the Alabama Department of Public Safety, the Alabama Department of Industrial Relations, the Commissioner of Agriculture and Industries, Executive Director Association of County Commissions of Alabama, Executive Director Alabama League of Municipalities, and The State Geologist of the Geological Survey of Alabama.



APPENDIX E

State Geospatial Portfolio (sample)

VIRTUAL ALABAMA



PROJECT FACT SHEET

Bob Riley
Governor

Jim Walker
Director

http://www.virtual.alabama.gov http://www.dhs.alabama.gov

Introduction: In October 2005, the Alabama Department of Homeland Security (AL DHS) initiated a project to access new technologies in 3D visualization. At the request of Governor Bob Riley, AL DHS began exploring and identifying ways to leverage existing state asset imagery and infrastructure data into a visualization tool that is affordable, scalable, maintainable, and capable of employing the power of existing and evolving internet based applications. As a result, the Virtual Alabama program was created.

Virtual Alabama uses a 3D globe interface to retrieve images from a merged global imagery dataset. This dataset transforms massive amounts of data into useful information for technical and non-technical users. As an example, Virtual Alabama provides the common operating picture and situational awareness needed by Alabama's first responders to protect lives and safeguard citizens before, during, and after a disaster.

Virtual Alabama serves a wide user base of state and local officials at various levels of technological proficiency. As an information tool, Virtual Alabama reduces technology gaps in economically challenged areas and levels the information "playing field" throughout the state. Additionally, the program provides the ability to integrate and distribute proprietary data securely across the internet.

In August 2006, Virtual Alabama reached initial operational capability (IOC). In December of 2008, Virtual Alabama had over 5400 online users and the best imagery available from all 67 Alabama counties ingested into the program.

Partners: Alabama Department of Homeland Security; U.S. Space & Rocket Center; and various federal, state, and local government agencies. As of December 2009 over 5,700 users representing over 1,450 different agencies were using the system.

Who is benefiting from Virtual Alabama?

- Homeland Security
- Emergency Management and Fire Services
- Public Safety
- City and County Government
- Economic Development/Planning
- Natural Resource Management
- Environmental Agencies
- Law Enforcement and Forensics
- Agriculture
- Transportation
- Military

Program Goals: Massive amounts of data and imagery inventory currently exist in Alabama. The goal of Virtual Alabama is to create efficiencies and cost savings by utilizing existing data in lieu of gathering new costly imagery. AL DHS relies heavily on state and local partnerships to provide previously collected imagery and asset data. Virtual Alabama leverages existing data sets to give an overall visual representation of the state's data inventory.

The visualization platform helps stakeholders, users, and decision makers understand the quality, resolution, scale, coverage, vintage, and useful applications of existing data and imagery. This, in turn, provides valuable information that will improve efficiencies, reduce redundancies throughout the state, and illustrate where data is currently missing or incomplete.

The AL DHS team is committed to building collaborative partnerships and data sharing cooperatives throughout Alabama.

Furthermore, Virtual Alabama will create a forum to provide information about upcoming data acquisitions and facilitate cost sharing opportunities among state and local agencies and the Federal government.

Real time activities associated with Virtual Alabama:

- Common operational picture
- Emergency evacuation routing
- Situational awareness/understanding
- Vehicle and asset tracking
- Critical infrastructure mapping
- Identification of assets and vulnerabilities
- Visualization of risks
- Plume modeling and real time sensors feeds
- Implementation of protective measures during events
- Damage assessment

AL Department of Homeland Security: (334) 956-7250
Jim Walker, Director
Norven Goddard, Asst. Director of Science and Technology
US Space & Rocket Center: (256) 721-7104
Chris Johnson, Geospatial Training and Application Center

APPENDIX F

Member Organizational Profiles (sample)

7/22/2009 13:12:04
Name: Robert Mink
Title: Deputy Director
Organization: Geological Survey and State Oil and Gas Board of Alabama

Organization's Mission:

The Geological Survey of Alabama (GSA) provides services and information to Alabama and its citizens as a natural resource datagathering and research agency. As part of its mission, GSA explores and evaluates the mineral, water, energy, biological, and other natural resources of the State of Alabama and conducts basic and applied research in these fields. The State Oil and Gas Board of Alabama (OGB) is a regulatory agency of the State of Alabama with the statutory charge of preventing waste and promoting the conservation of oil and gas while ensuring the protection of both the environment and the correlative rights of owners.

Geospatial requirement to support the organization's mission:

Two highly integrated tools in GSA's and OGB's exploration, evaluation, and management of natural resources are Geographic Information Systems (GIS) and remote sensing (RS). GIS and RS software used includes ESRI ArcGIS and other ESRI extensions and products, ERDAS IMAGINE and AutoSync, and IDRISSI. RS data used frequently includes satellite imagery, aerial photography, and LiDAR. GIS vector data used includes a wide array of data related to geology, environmental, energy, hydrology, political boundaries, ecology, landcover, facilities, and more. Geospatial data created, collected, and analyzed at GSA/OGB are shared with the public through publications, the website, and interactive, searchable online map services enabling geospatial data viewing and downloading.

Audience served by mission:

The audience served by the GSA's mission includes the public, state, federal, and other government agencies, academia, and all others interested in natural resources information.

What audience is served by geospatial activities performed by your organization?

The audience served by the GSA's geospatial activities includes the public, state, federal, and other government agencies, academia, and all others interested in natural resources information.

Are the products derived from your organization's geospatial activities provided to any federal agencies? If so, which agencies?

Federal Emergency Management Agency
U.S. Minerals Management Service
National Oceanic and Atmospheric Administration
U.S. Department of Agriculture – Natural Resources Conservation Service
U.S. Department of Defense
U.S. Department of Energy
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
U.S. Geological Survey
And other federal agencies

Please list products derived and shared:

RS data derived and shared frequently includes satellite imagery, aerial photography, and LiDAR. GIS vector data derived and shared includes a wide array of data related to geology, environmental, energy, hydrology, political boundaries, ecology, landcover, facilities, and more. Geospatial data created, collected, and analyzed at GSA/OGB are shared with the public through publications, the website, and interactive, searchable online map services enabling geospatial data viewing and downloading.

APPENDIX G

Executive Order Number 38

November 27, 2007

EXECUTIVE ORDER NUMBER 38

WHEREAS, State and local governments' information sharing needs, in the geospatial data technical environment, have grown considerably over the last several years; and

WHEREAS, federal, state, and other governmental agencies, educational institutions, and private industry have developed increasingly powerful computer systems designed to process and analyze map and other spatial information, collectively called Geographic Information System (GIS) technology; and

WHEREAS, the coordination, promotion, and facilitation of the development, effective use, and sharing of geographic information, geospatial data, and the effective and efficient use of GIS and related technologies in the State of Alabama to promote and assist in economic development can have a long term economic benefit to the citizens of Alabama; and

WHEREAS, it is necessary to remove barriers to, and provide guidance in, development and implementation of GIS technology to improve the delivery of emergency services, other public services, reduce redundancy and duplication of effort, manage and protect natural resources, and provide for wise and coordinated planning activities related thereto; and

WHEREAS, it is to the benefit of the state, local governments, education entities, nongovernmental organizations, businesses, and the citizens of Alabama to develop high-quality, accurate framework geospatial data; and

WHEREAS, State policymakers are increasingly called on to distinguish wants from needs, and to judge what the State can afford, both now and in the longer term; and

WHEREAS, State policymakers also face a world in which local, regional, and state boundaries are becoming less relevant when addressing a large range of issues; and

WHEREAS, In the process of making the difficult decisions required by these challenges, it is essential that policymakers are able to choose programs backed by solid strategic planning, technical evaluation, and that provide measurable results for the taxpayers of Alabama; and

WHEREAS, GIS technology can be used strategically as a management information and decision making tool in such areas as water resources, air resources, agricultural resources, energy resources, cultural resources, land resources, mineral resources, environmental management, forestry, geology, health, local government, planning, public safety, criminal justice, social services, transportation, utilities, waste management, homeland security, and wildlife; and

WHEREAS, Research has shown that states with the most successful GIS coordination programs universally have a strong state-level oversight body; and

WHEREAS, Statewide GIS resource coordination fosters a performance-based and results-oriented environment that directly serves several of the six top priorities established as part of the SMART Budgeting initiative;

NOW THEREFORE, based upon these considerations, and for other good and valid reasons which relate thereto, I Bob Riley, as Governor of the State of Alabama, by virtue of authority vested in me by the Constitution and laws of Alabama do hereby establish the Alabama Geographic Information Executive Council. Such establishment shall comply with the following requirements:

Section 1. Purpose.

The purpose of this statewide geographic information coordination effort shall be to establish policies relating to the use of geographic information, geospatial data, and related technologies; to further cooperation among state, federal, and local government agencies; academic institutions; and the private sector to improve the quality, access, cost-effectiveness, and utility of Alabama's geographic information and to facilitate the employment of geographic information as a strategic resource in the State.

Section 2. Establishment

The Alabama Geographic Information Executive Council is created and shall operate as an independent council. The Council shall have the duties, responsibilities, functions, and authority set forth in this order and otherwise provided by law.

Section 3. Duties Generally.

The Alabama Geographic Information Executive Council is established to develop policies regarding the utilization of geographic information, GIS systems, and other related technologies. The Executive Council shall be responsible for the following activities:

1. Strategic planning for a sustainable state program to coordinate GIS
2. Resolution of policy and technology issues

3. Coordination of interagency development of high-quality, accurate framework for geospatial data
4. Coordination, direction, and facilitation of state, county, and local government GIS efforts
5. Educational outreach program to coordinate geospatial training efforts
6. Advising the Governor, the Legislature, and local governing bodies as to needed directions, responsibilities, and funding regarding geographic information
7. Evaluate and determine the staffing requirements for GIS Coordination at the state level
8. Seek input from all stakeholders at all levels of government, and the private sector to include public utilities, business professionals, industry leaders and others with a vested interest in GIS

Section 4. Executive Council Membership

There is hereby created an executive council to meet on the call of the Chair to perform the duties outlined in this order.

Members - The council shall consist of the following members, or their designees:

1. Director, Alabama Department of Finance
2. Commissioner, Alabama Department of Revenue
3. Director, Alabama Department of Transportation
4. Director, Alabama Emergency Management Agency
5. Director, Alabama Department of Environmental Management
6. Director, Alabama Department of Homeland Security
7. Director, Alabama Department of Economic and Community Affairs
8. Commissioner, Alabama Department of Conservation
9. Director, Alabama Department of Public Safety

Council members shall serve terms coinciding with their respective offices. The Governor shall appoint a Chairman from the council membership to serve for a term of two years. The council shall adopt bylaws to govern its proceedings accordingly. The council shall meet at least quarterly on the call of the Chair. The council shall subdivide itself as necessary into standing committees and workgroups to accomplish the stated purposes of the council. All council members shall serve without compensation, and will be reimbursed for expenses by their respective agencies.

No person or individual shall continue to serve on the council when he or she no longer officially represents the function or serves in the capacity enumerated in this section as a member to which he or she was appointed.

The council shall report at least annually to the Governor and the Alabama Legislature on the progress made toward accomplishing their missions.

Section 5. Advisory Committee

There is hereby created an Advisory Committee to ensure that state and local interests are represented. The Advisory Committee's purpose will be to foster communication and cooperation among stakeholders throughout state, local, and federal agencies; educational institutions; private industry; and others in the field of Geographic Information Systems; provide guidance for the Executive Council in fulfilling the objectives of the Strategic Plan; provide an arena for discussions of relevant GIS issues within the state; and provide expert advice to the Executive Committee and the GIS community on GIS related issues. Members of the Advisory Committee shall be appointed by the Governor for a four year period. Additionally, the Governor shall appoint two members of the Advisory Committee to serve a one year term as voting members of the Council.

The Advisory Committee shall have representation from stakeholders throughout the state to include the areas of water resources, air resources, agricultural resources, energy resources, cultural resources, land resources, mineral resources, environmental management, forestry, geology, health, local government, planning, public safety, criminal justice, social services, transportation, utilities, waste management, homeland security, and wildlife.

Section 6.

This Order is effective immediately. This Order shall remain in effect until amended or modified by the Governor or until terminated by operation of law.

DONE AND ORDERED this 27th day of November, 2007.

_____

Bob Riley
Governor

Attested:

_____

Beth Chapman
Secretary of State

EXECUTIVE ORDER NUMBER 38
AMENDMENT

WHEREAS, Executive Order No. 38 was issued on November 27, 2007, establishing the Alabama Geographic Information Executive Council; and

WHEREAS, as the Alabama Geographic Information Executive Council moves toward achieving its mission and goals, it has became apparent the need to include additional members.

NOW THEREFORE, I, Bob Riley, Governor of the State of Alabama, by virtue of the authority vested in me by the Constitution and laws of Alabama, and for other good and valid reasons, which relate thereto, do hereby amend Executive Order No. 38, dated November 27, 2007, by adding the following members to the GIS Council:

Director , Alabama Department of Industrial Relations, or his designee; and
Commissioner, Department of Agriculture and Industries, or his designee.

BE IT FURTHER ORDERED, that in all other respects, the terms and conditions of Executive Order No. 38 shall remain in full force and effect, and that this Amendment shall become effective immediately upon signing and shall remain in effect until amended or modified by the Governor.

DONE AND ORDERED this 3rd day of March, 2008.

_____
Bob Riley
Governor

Attested:

_____
Beth Chapman
Secretary of State

EXECUTIVE ORDER NUMBER 38
AMENDMENT NUMBER TWO

WHEREAS, Executive Order Number 38 was issued on November 27, 2007, establishing the Alabama Geographic Information Executive Council; and

WHEREAS, it has come to my attention that this Council would benefit from the addition and input of the Geological Survey of Alabama.

NOW THEREFORE, I, Bob Riley, Governor of the State of Alabama, by virtue of the authority vested in me by the Constitution and laws of Alabama, and for other good and valid reasons, which relate thereto, do hereby amend Executive Order No. 38, dated November 27, 2007, which established the Alabama Geographic Information Executive Council, by adding the new following member to the Council:

The State Geologist of the Geological Survey of Alabama, or his designee.

BE IT FURTHER ORDERED that in all other respects, the terms and conditions of Executive Order Number 38 shall remain in full force and effect, and that this Amendment Number Two shall become effective immediately upon signing and shall remain in effect until amended or modified by the Governor.

DONE AND ORDERED this 10th day of November, 2009.

_____

Bob Riley
Governor

Attested:

_____

Beth Chapman
Secretary of State

APPENDIX H

VIRTUAL ALABAMA - Benefits of Statewide Visualization to Information Sharing

Much of the information available in our government agencies today has a geospatial component that can prove useful in organizing and visualizing data. **Visualization technology promotes a willingness to share information, because it overcomes the fear that data will be edited or redistributed in some unintended way.**

Visualization solutions enable technical and non-technical users alike to discover, test, and evaluate existing datasets to determine suitability of use instead of distributing the actual geospatial information systems (GIS) content. If data meets the users' requirements, data sharing arrangements can be made directly with the data custodian thereby eliminating the cost of recreating/reacquiring or centralized storage of the information. Traditionally, the process of discovering existing data assets could be time consuming and labor intensive. Visualization assists by providing easy access to imagery, data assets, and key metadata that agencies and departments already possess and more importantly, what data we should be focused on acquiring. Such discovery and collaboration lends to cost savings, reduced redundancy in data creation, and repurposing of existing data in ways never imagined. With the help of new Internet-based search and visualization technologies, a heightened awareness, and collaborative spirit, information sharing challenges among agencies are starting to dissipate. In July of 2006, the Alabama Department of Homeland Security launched a statewide visualization system to provide situational awareness and understanding to government agencies at every level. As of December 2009, Virtual Alabama supports over 5,700 users representing over 1450 different government agencies and contains imagery and infrastructure data provided by all 67 counties. Visualization creates a cost-effective statewide capability that improves information sharing and decision making during emergencies. Based on current and emerging technologies, visualization integrates existing information sharing frameworks and technologies to enable collaboration at the local, tribal, state, and federal levels by providing critical context for information- thereby making the information actionable for the practitioner in the field. Visualization technology continues to build partnerships and provide a collaborative forum that has forever changed the way we collect, analyze, manage, share, and disseminate geospatial information in Alabama. Increased awareness and sharing of data have led to a better understanding and support for good metadata and consistent data standard practices. Complete and accurate metadata is essential to make information searchable and discoverable.

The Virtual Alabama program continues to be used as a catalyst, or enabler, to examine issues associated with delivery of spatial information. Some of the issues include: access to relevant spatial information, when and where it is needed, to give a User Defined Operating Picture for operational, strategic, and executive level decision support; wide acceptance and use of spatial information to support core business and prevention, preparedness, response, and recovery activities; incident management, predictive modeling and analysis; agreed data sharing standards and access to protocols facilitating consistent and cooperative sharing of spatial information across agencies and jurisdictions; and collaborative and complementary arrangements within and across jurisdictions for the access and use of spatial information. The visualization system will continue to be used to examine challenges by implementing the strategic pathways in the Spatial Strategic Plan.

APPENDIX I

Core function areas for geospatial information include: Business function, modeling function, analysis function, visualization

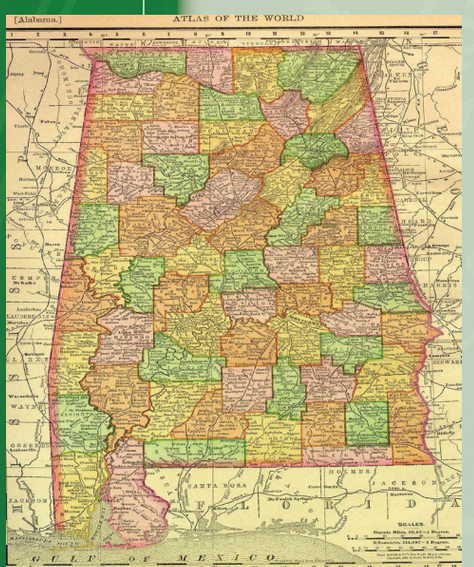
Purpose classification: Operational, Development, Prevention, Preparedness, Response, Recovery

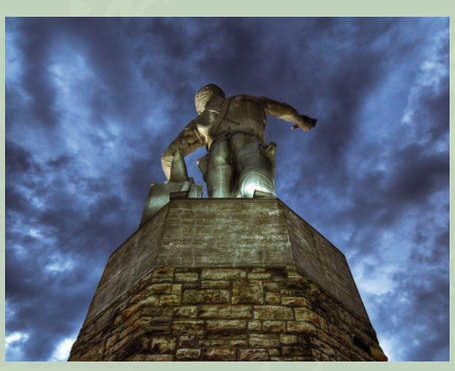
Service classification: Viewer (web browser based), Users (GIS Application), Doer (business application)

Security classification: Unclassified, Classified - Non-national security, national security

Access classification: Unrestricted, Commercially restricted, Application restricted, licensed, limited distribution

Data classification: Metadata services -- Relatively static, Dynamic, Operational





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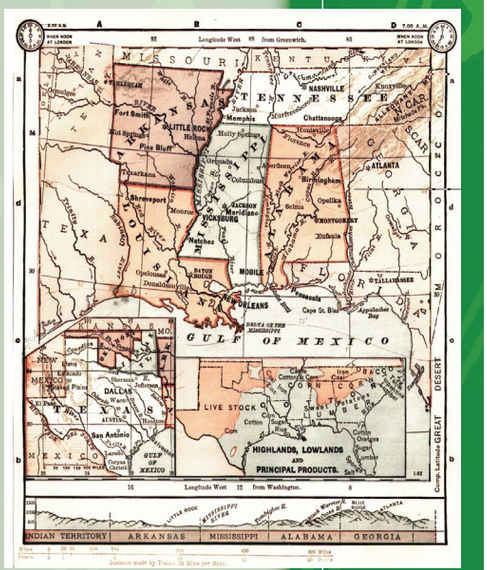
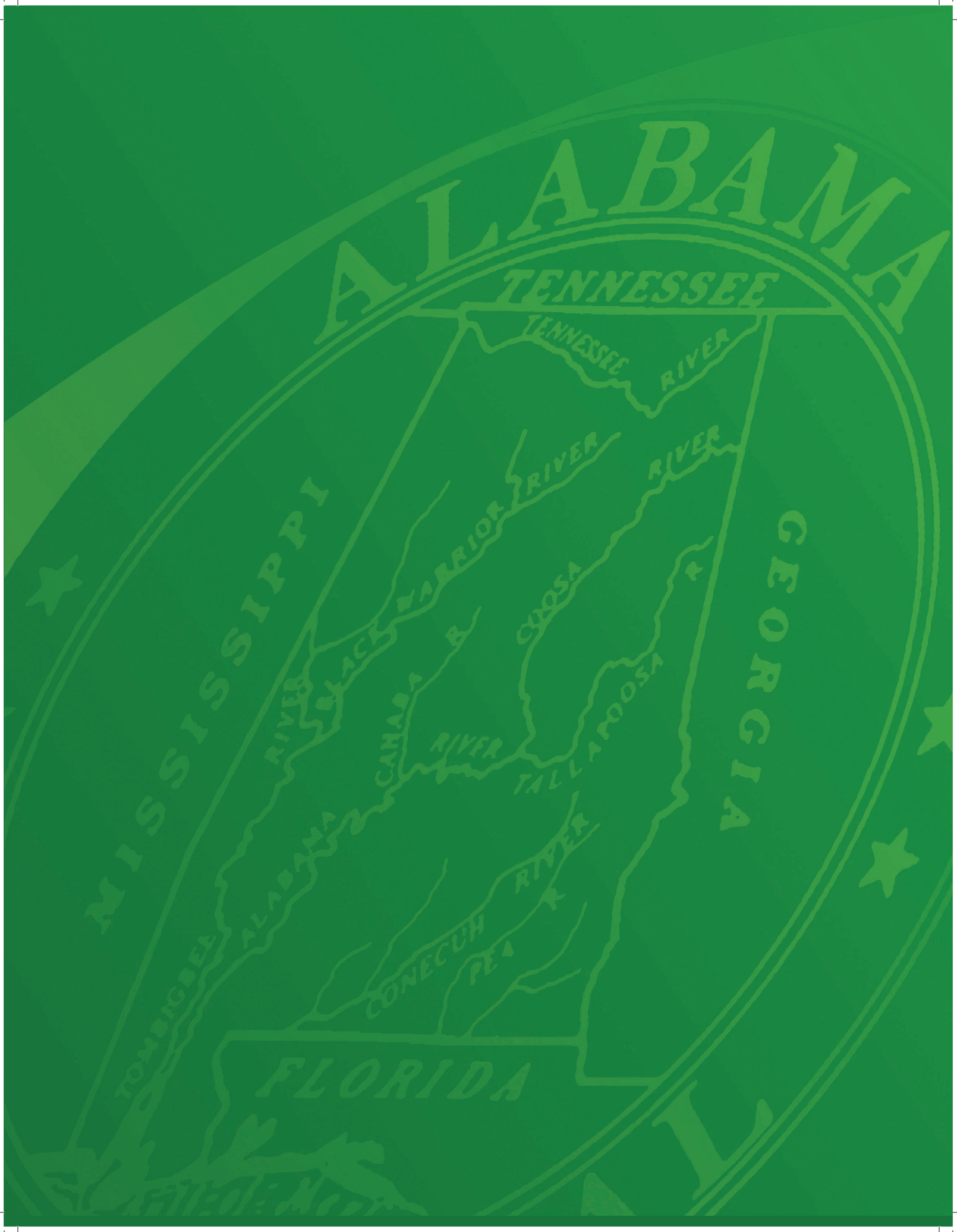

GULF OF MEXICO
LIVE STOCK
HIGHLANDS, LOWLANDS AND PRINCIPAL PRODUCTS.
INDIAN TERRITORY
ARKANSAS
MISSISSIPPI
ALABAMA
GEORGIA


ALABAMA
TENNESSEE
TENNESSEE RIVER
MISSISSIPPI
GEORGIA
FLORIDA
TALLAPOOSA RIVER
CONECUH RIVER